

STORAGE



DEPARTMENT OF MARINE AND FISHERIES, CANADA.
METEOROLOGICAL SERVICE.

Monthly Weather Review

VOL. XXXVIII.

JANUARY, 1914

No. 1

INTRODUCTION.

In compiling the present Review, the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

HIGH AREAS.

Eleven areas of high pressure were charted. Five first appeared in the neighborhood of the Yukon Territory, one to the northward of and one over Manitoba, and four in the Pacific States. Four areas passed over, three far to the northward, and the remainder to the southward of the Great Lakes. Several of the systems were of considerable energy, especially during the second and third decades of the month, attended by some very low temperatures, and in consequence the latter half of January was generally very cold over the greater portion of the Dominion.

LOW AREAS.

Sixteen areas of low pressure were charted. Eight first appeared in the far northwestern portion of the continent, four in the North Pacific States, one in the Middle Pacific States, two in the Southwestern States, and one on the Atlantic between the Florida Coast and Bermuda. The general path of the areas was over the Great Lakes, thence to the Maritime Provinces and Newfoundland. Many of the systems were pronounced, and especially so in the Maritime Provinces and Newfoundland, where some very heavy gales were experienced.

ATMOSPHERIC PRESSURE.

Exceptionally low barometer readings were recorded during January, this being especially the case on the Atlantic and Pacific coasts, and the resultant mean atmospheric pressure was sub-normal throughout Canada. In British Columbia the departure from average was from -0.30 to -0.40 of an inch, and in the Western Provinces about -0.20 of an inch, while in Ontario, Quebec and the Maritime Provinces it was generally about -0.10 of an inch, although in Northern Districts of Quebec and Northeastern Ontario it was about -0.05 of an inch. The results obtained at the Telegraph Reporting Stations are considered indicative of the general conditions of the distribution of atmospheric pressure.

GENERAL SYNOPSIS OF TEMPERATURE AND PRECIPITATION.

The following table is intended to show the average values of temperature and precipitation for each province for the month under review. District and Provincial means would, under ideal conditions, be derived from stations situated in equi-areal squares. But since in reality they are so situated as to appear, rather, constellation-wise upon the map, anomalous values arising from local topographical peculiarities may have received more than their just weight in the computation of the following averages.

Where no difference from normal is assigned, observations over a period long enough for reference are not available.

FREE AIR DATA

REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on January 8th, 1914.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—719 mm.

Temperature = 1.1° C.

Direction of flight at Beginning—North.

Fell—245 km. distant S.78° E.

Maximum Height—12.3 km.

Minimum Temperature = —51.0° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	719		1.1
0.5	699	0.0	— 1.0
1.0	658	6.0	— 1.5
1.15	646	6.5	4.5
1.5	618	4.5	3.5
2.0	580	2.0	0.0
2.5	544	— 1.5	— 3.0
3.0	510	— 4.0	— 5.5
3.5	478	— 8.0	— 9.0
4.0	448	—11.0	—12.5
4.5	418	—15.0	—16.0
5.0	391	—18.5	—19.5
5.5	366	—21.5	—23.0
6.0	340	—25.5	—27.0
6.5	318	—29.0	—31.0
7.0	295	—33.5	—35.0
7.5	274	—37.0	—38.5
8.0	256	—40.0	—41.5
8.5	237	—43.5	—45.0
9.0	220	—45.5	—47.0
9.5	203	—47.5	—48.5
10.0	189		—50.0
10.3	182		—51.0
11.0	164		—50.5
11.6	148		—46.5
12.0	139		—46.0
12.3	133		—46.0

Pressure was low over the whole continent, the centres of lowest pressure being over Iowa and Alberta, and off the Newfoundland Coast.

WINDS, JANUARY, 1914

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	2175	276							
Prince Rupert.....									E
Victoria.....	7090	465	36	W	28	4	14	8	E
9603	537	40	NW	27		12	0	9	E
Point Garry.....									
Vancouver.....									E
Kamloops.....	2368	191	21	SW	27		1	3	E
ALBERTA.									
Edmonton.....	3742	232	17	E	11-26-26			8	SW
Calgary.....	2251	222	20	SW	6		1	7	NW
SASKATCHEWAN.									
Battleford.....									SE
Prince Albert.....	2290	205	15	NW	10			5	
Swift Current.....	8168	431							SW
Qu'Appelle.....	7654	538	33	NW	28	1	14	10	NW
MANITOBA.									
Le Pas.....	5587	403							W
Winnipeg.....	8877	486	35	S,SE	5	3	11	13	SE, NW
ONTARIO.									
Port Arthur.....	5822	388	33	SW	29	1	6	5	NW
White River.....	3986	295	28	NW	29		2	10	NE, E
Cochrane.....	5497	490	31	W	29	1	3	13	N, NW
Parry Sound.....	7048	464	23	SW	29		6	18	SE
Southampton.....									S
Pelea Island.....	*11764	845	55	SW	30	12	15	3	
Woodstock.....	8584	512	30	SW, NW	11-27-31	3	12	13	SW
Guelph.....	8828	523							NW
Toronto.....	11064	778	49	E	31	8	18	4	N
Kingston.....	*7170	441							NE
Stonecliffe.....	4191	257	16	NW	12-30			10	E
Ottawa.....									E
QUEBEC.									
Montreal.....	11244	726	41	NW	30	6	14	10	NE
Sherbrooke.....									
Quebec.....	11716	868	57	NE	31	14	7	8	NE
Father Point.....	8698	867	43	W	30	6	10	5	N, SW
Anticosti, SW.....	8898								
Harrington.....									
NEW BRUNSWICK									
Pt. Eacuminac.....	14029	919	51	W	26	15	10	4	NW
Fredericton.....	993	620	38	SW	30	3	8	6	NW
St. John.....	11233	673	41	NW	25	7	13	10	NW
Pt. Lepreux.....	14221	865	45	NW	14	16	7	7	N, NE
NOVA SCOTIA									
Yarmouth.....	11697	620	44	SW	25				NW
Wolfville.....									
Halifax.....	11311	600	41	SW	25	7	13	9	NE
Sable Island.....									
Flat Point.....	17127	1426	60	E	18	23	4	30	NE
PRINCE EDWARD ISLAND									
Charlottetown.....	7784	492	30	SW	30	1	12	11	NE

* Record for 30 days

*Stations not furnished with Registering Thermometers.

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JAN. 1914.

* Stations not furnished with Registering Thermometers

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JAN., 1914.

*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.					
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Date with .01 or more.
SASKATCHEWAN—															
<i>Qu'Appelle River</i>															
Broadview.	50 23	102 33	1060												
Brownhill (Grenfell P.O.).	50 23	102 53	1957	7.6	+ 9.6	23	45.0	5	-33.0	24	17.7	1.70	+ 1.46	0.00	6 25
Buchanan.	51 42	102 45													
Crescent Lake.	50 59	102 25	1658	4.3	+ 9.0	10	42.7	6	-30.2	26	19.3	1.45	+ 0.71	0.50	11 20
Estevan.	50 59	103 4	1858	12.7	-15.7	13	17.0	7	-35.0	14	17.1	1.10	+ 0.44	0.80	3 23
Fort Qu'Appelle.	50 47	103 47													
Hubbard (Dramague).	51 5	103 21													
Humboldt.	51 5	105 9													
Imperial.	52 12	105 23													
Indian Head.	51 22	103 40	1241	7.0	+ 5.8	23	44.0	5	-34.0	24	17.9	1.25	+ 0.89	0.30	7 24
Kamsack.	51 30	101 52													
Moose Jaw.	50 21	105 35	1759	11.4	+ 8.1	19	50.0	6	-33.0	24	21.3	1.00	+ 0.40	0.30	11 20
Mooseman.	50 0	101 37	1884	6.7	+ 9.1	11	41.0	5	-16.0	23	8.7				
Muenster (St. Peter's Men).	52 0	105 0	1870	5.0	+ 10.8	10	36.0	5	-36.0	24	19.4	0.13	-	0.08	2 29 2
Pilger.	52 25	105 9													
Ponse (Gatesgarth).	50 20	105 0	1879	9.1	+ 2.8	19	49.0	5	-22.0	23	19.1	0.60	+ 0.27	0.30	3 25
Qu'Appelle.	50 30	103 47	2115	9.5	+ 7.5	30	50.0	5	-30.0	24	17.4	1.54	+ 0.86	0.40	13 18
Regina.	50 27	104 37	1885	8.4	+ 11.7	27	45.0	5	-38.0	24	18.7	0.84	+ 0.46	0.25	12 19
Strongfield.	51 21	106 36													
Yarbo (Fairfield).	50 30	102 4													
Yellow Grass.	49 49	104 9													
Yorkton.	51 11	102 29													
<i>S. Saskatchewan River</i>															
Chaplin.	50 26	106 39	2202	9.9	+ 6.9	26	4.8	5	-37.0	24	20.8	1.05	+ 0.33	0.40	6 25
Kindersley.	51 28	100 9													
Kintenel (Divide).	49 38	108 53	3500	15.5	-	5	49.4	7	-24.2	24	13.9	1.22	-	0.70	4 27
Kelvinhurst (Nashlyn).	51 46	108 10													
Larchmount (Glenbryan).	49 21	109 29	2500	11.4	-	4	57.5	8	-39.0	24	23.7	1.55	-	0.80	5 26
Rathmullen.	51 20	108 57													
Swift Current.	50 20	107 45	2429	13.4	+ 5.3	28	56.0	6	-36.0	24	21.6	0.61	- 0.05	0.36	11 20
<i>N. Saskatchewan River</i>															
Aaglia.	51 55	101 10		3.5	-	2	43.0	4	-39.0	24	20.5	1.30	-	0.60	5 26
Battleford.	52 41	108 20	1620	5.8	+ 7.0	24	40.0	5-14	-35.0	29	17.4	0.70	+ 0.24	0.20	6 25
Lloydminster.	53 18	110 0													
Luseland.	52 5	109 34		3.6	-	3	47.0	6	-39.0	25	17.7	1.25	-	0.30	7 24
Onion Lake.	53 52	109 59		1.7	-	1	35.0	7	-40.0	28-29	17.8				
Prince (Meota).	51 0	108 20	1700	1.5	-	8	37.0	6	-44.0	23 29	21.4	0.40	-	4 27	3 24
St. Walburg.	53 36	109 9													
Scott (Ex. Farm).	51 59	109 30		1.9	-	3	38.0	5	-37.3	25-29	20.0	0.65	-	0.25	7 24
Waseca.	53 0	109 29		2.2	-	7	35.0	5	-35.0	22	18.2	0.65	-	0.20	7 24
<i>The Saskatchewan Forks</i>															
Melfort.	52 47	104 30		2.9	-	5	36.0	5	-28.0	25-26	18.7	0.60	-	0.20	4 27
Prince Albert.	53 10	106 0	1432	4.7	+ 8.0	28	36.0	14	-35.0	25	18.1	0.71	- 0.16	0.30	7 24
Rosthern.	52 40	106 20	1657	1.5	-	4	35.5	7	-37.8	23	19.5	0.65	-	0.20	6 26
Saskatoon.	52 15	106 30	1571	4.7	+ 3.2	28	38.0	5	-35.0	25-26	20.8	0.90	+ 0.41	0.35	6 25
<i>Lower Saskatchewan River</i>															
Lost River.	53 17	104 21		1.9	-	4	36.0	6	-31.0	25-26	13.2	-	-	-	
<i>MANITOBA—</i>															
<i>Qu'Appelle and Assiniboine Rivers</i>															
Boissevain.	50 25	101 1	1703	2.4	+ 4.5	27	38.0	5	-37.6	24	20.8	1.65	+ 0.52	0.50	8 23
Brandon.	49 51	99 57	1176												
Carman.	49 31	98 0	872												
Cypress River.	49 33	99 3	1232												
Hillview.	49 55	100 33	1400												
Minnedosa.	50 15	99 50	1699	4.2	+ 4.8	30	37.4	5	-30.3	12	20.1	1.76	+ 0.68	0.81	8 23
Ninette.	49 24	99 38	1363	13.7	-	3	45.0	5-6	-18.0	29	20.8	1.01	-	0.60	9 22
Ninga.	49 14	99 51	1649	5.4	-	4	41.0	5	-43.0	28	21.3	-	-	-	
Pierson.	49 11	101 5	1531												
Pipistone.	49 34	100 55	1400												
Portage la Prairie.	49 57	98 17		3.0	+ 7.9	24	38.0	6	-26.0	24-25	20.4	1.10	- 1.85	0.20	8 23
Portage la Prairie (2).	49 56	98 17													
Russell.	50 59	101 20		2.0	+ 7.8	22	40.0	5	-38.0	25	17.1				
St. Alban's (Treesbank).	49 42	99 32	1180	4.4	+ 6.4	27	40.0	5	-34.5	25	22.3	2.31	+ 1.89	0.53	17 14 1
Souris.	49 37	100 14		18.3	-	2	37.0	16	-33.0	24	21.7	26.0	-	0.60	6 25
Trarherne.	49 36	98 40	1212	7.3	+ 5.8	18	39.0	5	-24.0	24-26	21.2	1.89	+ 1.22	0.50	13 19
Virden.	49 51	100 55	1444												
<i>The Red River</i>															
Almasippi.	49 14	99 20		5.7	+ 8.6	12	41.0	5	-31.0	24	18.4	2.25	+ 1.74	1.20	8 23
Morden.	49 11	98 6	978	8.9	+ 7.6	10	39.0	6	-22.0	12	15.9	2.09	+ 1.12	1.10	3 28 2
Oak Bank.	49 57	96 42	800	6.3	+ 8.1	19	33.0	18-19	-5.0	25	13.4	2.00	+ 1.09	0.80	6 25
Stony Mountain.	50 40	97 14	803	4.8	+ 8.2	32	34.0	19	-35.0	24	21.3	0.65	+ 0.25	0.20	7 24
Winnipeg.	49 53	97 7	760	7.7	+ 10.3	40	33.6	19	-23.5	24	18.0	0.79	- 0.18	0.20	15 16

1 No. of fogs
1 No. of thunderstorms
1 No. of auroras
1 No. of fair days

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JAN., 1914.

* Stations not furnished with Registering Thermometers.

STATION.	TEMPERATURE.												PRECIPITATION					
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Highest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fog.
MANITOBA—Continued																		
<i>Dauphin Lake and River</i>																		
Berens River.....	52 18	97 23	716	1.6	—	6 24.0	20	22.0	24	20 2	1.20	—	0.70	2	29	..	..	..
Dauphin.....	51 8	160 2	957	3.1	—	9 47.0	6	25.0	26	20 3	1.30	—	0.60	3	25	..	..	..
Moose Horn Bay (Aitkensville).....	51 15	99 33	810	2.1	—	4 37.8	6	37.0	26	16 3	2.05	—	0.40	12	19	..	..	..
<i>Lake Winnipegosis</i>																		
Le Pas.....	52 6	101 15	1112	— 2 3	—	4 30.0	5	32.0	20	15 3	1.40	—	0.70	11	20	..	..	..
ONTARIO—																		
<i>The Lake Superior Districts</i>																		
<i>Rainy River</i>																		
Fort Frances.....	48 38	93 25	1102	5.9	+ 6 1	15 34.0	19	39.0	24	15 1	1.30	+ 0.00	0.50	4	27	..	..	..
Kenora.....	49 48	93 32	1102	8.2	+ 6 1	1 34.0	7-19	35.0	25	18 8	0.39	—	0.47	3	28	..	..	..
Shoal Lake.....	49 37	95 6	.....	0.2	—	1 31.0	19-20	33.0	24	18 5	1.33	—	0.28	10	21	..	..	..
Sioux Lookout.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<i>Thunder Bay</i>																		
Kakabeka Falls.....	48 29	89 26	912	8.2	—	6 31.0	19	38.0	25	25 0	1.25	—	0.35	6	25	..	..	..
Port Arthur.....	48 27	89 12	644	12.7	+ 5 6	33 36.0	7-29	22.0	13	20 7	0.94	+ 0.19	0.40	11	20	..	..	2
Savanne.....	48 55	90 18	1506	19.9	+ 10.4	12 32.0	8 20	36.0	25	10 6	1.30	- 0.06	0.80	4	27	..	..	..
Schreiber.....	48 50	87 15	933	9.4	+ 3.8	12 41.2	19	33.8	25	27 0	2.73	—	1.20	8	23	1	..	2
<i>Algoma</i>																		
Bisco.....	47 40	82 11	1333	6.9	—	1 41.8	29	42.0	13	20 5	2.09	—	1.06	10	21	..	..	1
Bruce Mines.....	46 18	83 55	595	16.2	+ 1 8	17 43.0	29	35.0	13	15 4	2.44	+ 0.35	0.96	8	23	..	..	2
Chapleau.....	47 48	83 28	.....	8.6	—	1 44.5	29	45.0	13	20 0	0.70	—	0.30	3	28	..	..	..
Copper Cliff.....	46 30	80 59	.....	13.5	—	8 45.0	8-9	35.0	13	23 8	1.36	—	0.56	12	19	..	..	..
Grassett.....	8 29	84 29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Porcupine.....	15 40	82 14	.....	1 3	—	3 45.0	30	38.0	13-14	28 2	1.90	—	0.40	11	20	..	..	..
Providence Bay.....	48 35	85 18	1252	21.3	—	3 41.0	29	30.0	13	23 6	2.66	—	0.95	12	19	..	..	..
Timmins (Saadys Falls).....	48 40	81 30	855	3.0	—	2 46.5	30	40.0	13-14	28 5	2.64	—	0.80	12	19	..	..	..
White River.....	48 35	83 16	1248	3.6	+ 2 7	24 37.0	29	48.0	13	28 9	1.00	- 0.73	0.20	9	22	..	..	..
<i>Nipissing</i>																		
Cochrane.....	49 2	81 0	946	2.9	—	3 45.0	29	38.0	13	24 4	2.45	—	0.40	10	21	..	..	..
Haileybury.....	47 29	79 39	687	7.7	+ 1.0	20 45.1	29	34.4	13	20 0	2.43	+ 0.40	0.70	18	13	..	..	..
Iroquois Falls.....	48 45	80 40	850	4.1	—	1 45.5	29	36.0	13	24 6	1.75	—	0.33	14	17	..	..	..
Montreal River.....	17 8	79 20	.....	9.9	—	4 51.0	15	35.0	12	23 4	3.48	—	1.10	14	17	..	..	..
<i>Upper Ottawa River</i>																		
Rutherford (Lake Taloo).....	40 15	74 48	.....	7.1	- 0 6	19 47.5	29	35.5	13	21 3	1.40	- 0.96	0.40	9	22	1	..	..
Stonecliff (Rockliffe).....	46 9	78 6	857	9.1	+ 2.3	36 47.0	30	32.0	13	18 6	3.18	+ 1.19	0.60	20	11	..	..	..
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																		
Almonte.....	45 12	76 13	390	10.6	—	2 45.0	29	33.0	14	15 3	3.27	—	0.80	14	17	..	..	..
Bloomfield.....	43 50	77 21	260	19.6	- 1.6	14 44.0	30	29.0	13	18 3	3.13	+ 0.70	0.60	9	22	..	..	..
Hillier.....	44 13	76 29	285	17.0	- 1.3	39 45.1	29	24.0	14	10 0	2.01	—	0.50	8	23	..	..	..
Kingston.....	44 50	75 57	.....	10.5	—	4 46.0	29	39.0	14	22 7	2.89	—	0.95	9	22	..	..	..
Montague.....	44 56	75 12	.....	9.7	—	1 48.3	29	32.0	14	20 5	2.40	—	0.60	8	23	..	..	..
Morrisburg.....	45 8	75 43	.....	7.0	—	12 38.0	21-31	32.0	7-14	24.3	—	—	—	—	—	..	..	..
North Gower.....	45 26	75 42	204	11.2	- 0.9	31 42.0	29-30	30.0	14	18 1	3.12	+ 0.13	0.90	15	16	..	..	..
Ottawa.....	45 28	76 39	418	9.3	- 1 3	24 48.5	29	33.0	14	17 0	3.03	+ 1.38	0.79	16	15	..	..	..
<i>Georgian Bay Counties</i>																		
Barrie.....	44 23	79 41	839	19.5	+ 1.5	35 45.0	29	29.0	14	16 3	4.50	+ 1.36	0.70	17	14	..	..	1
Bentrice.....	45 8	79 20	800	16.5	+ 3.0	37 46.0	29	33.0	14	20 4	3.42	- 0.68	0.90	13	18	..	..	..
Big Chute (Buskin P. O.).....	44 42	79 38	655	17.8	—	1 50.0	30	36.0	14	19 5	2.77	—	0.50	13	18	..	..	..
Coldwater.....	44 38	79 40	600	19.1	+ 1.5	26 51.0	29	33.0	13-14	18 8	3.34	- 0.92	1.03	10	21	..	..	..
Collingwood.....	44 31	80 2	.....	21.6	+ 1 2	21 52.0	30	25.0	14	16 6	2.63	—	0.80	11	20	..	..	..
Gravenhurst.....	44 54	79 20	.....	16.5	+ 1.5	43 47.0	29	35.0	14	22 7	3.06	- 0.28	0.60	13	18	..	..	..
Huntsville.....	45 19	79 5	.....	16.3	—	7 49.0	29	6.0	13	18 3	—	—	—	—	—	..	..	..
Midland.....	44 44	79 53	750	17.6	—	2 49.0	30	19.0	14	18 3	1.40	—	0.50	4	27	..	..	..
Markdale.....	44 19	89 39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..	..	..
Meaford.....	44 36	80 36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..	..	..
Orillia.....	44 37	79 24	775	17.8	+ 0.1	20 43.0	29	33.0	13	16 3	3.47	+ 0.92	0.85	10	21	..	..	..
Owen Sound.....	44 34	80 55	897	17.7	+ 2.5	38 47.0	29	34.0	13	21 1	2.08	- 1.48	0.40	17	14	..	..	..
Parry Sound.....	45 19	80 0	635	17.7	+ 2.5	38 47.0	29	34.0	13	21 1	2.08	- 1.48	0.40	17	14	..	..	..
Ronville.....	45 15	78 57	1038	16.1	—	7 46.0	29	38.0	13	16 8	2.70	—	0.60	8	23	..	..	..
Sundridge.....	.....	.....	.....	12 4	—	1 44.9	29	43.0	15	23 8	—	—	—	—	—	..	..	..
<i>Lake Huron Counties</i>																		
Birnam.....	43 2	81 55	600	27.3	+ 6 2	32 52.4	29	11.2	14	8 8	2.96	- 0.26	0.61	11	20	..	..	4
Brucefield.....	43 32	81 37	.....	21.1	+ 3 5	11 52.0	30	10.0	14	13 4	2.85	- 0.74	0.61	16	15	..	..	1
Lucknow.....	43 86	81 30	908	22.8	+ 1 4	27 49.8	29	14.1	13	14 1	3.39	- 1.03	1.00	15	16	..	..	5
North Bruce.....	44 23	81 25	.....	25.3	+ 2 9	25 50.0	29	16.0	13	12 0	2.44	- 0.78	0.50	16	15	..	..	..
Ridgerest (Goderich).....	43 45	81 41	.....	24.6	+ 2 8	23 51.5	30	12.0	13	12 8	3.76	+ 0.69	0.32	13	18	..	..	..
Southampton.....	44 30	81 21	656	24.8	+ 2.9	37 51.8	29	10.0	13	14 2	3.17	- 0.80	0.50	22	9	..	..	..
<i>Lakes St. Clair & Erie, Niagara Peninsula</i>																		
Chatham.....	42 23	82 12	505	28.7	+ 5 2	23 56.0	29	— 1.0	14	9 7	1.47	—	0.40	6	25	..	..	..
Cottam.....	42 7	82 45	808	26.6	+ 0.5	26 60.0	29-30	— 5.0	13	20 0	3.00	+ 0.67	0.70	6	25	..	..	5
Dutton.....	42 40	81 32	.....	27.6	—	1 55.0	29	10.0	14	13 8	2.05	—	1.20	5	26	..	..	..
Grimsby.....	43 13	78 36	.....	26.9	—	5 58.0	29	— 13.0	13	14 2	3.63	—	1.20	11	20	..	..	..
Pelea Island.....	41 50	82 35	585															

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JAN., 1914.

* Stations not furnished with Registering Thermometers.

STATION	TEMPERATURE										PRECIPITATION							
	Latitude N.	Longitude W.	Elevation above sea level in feet.	Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date	Mean daily range.	Amount	Difference from Average.	Heaviest fall in month.	Days with 0 or more	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of locs.
ONTARIO—Continued—																		
West-Central Counties																		
Alton.	43 51	80 5	1250	19.2	+ 0.8	28	46.0	30	-26.0	13	16.0	2.65	+0.38	0 43	10	21	..	6
Brantford.	43 10	80 21	750	22.9	+ 2.7	33	55.0	29	-22.0	13	15.9	3.27	+0.85	1 45	8	23	..	..
Elora.	43 41	80 24	1274	20.7	+ 1.9	16	48.0	30	-25.0	13-14	15.0	2.65	-0.37	0.75	8	23	..	..
Guelph.	43 33	80 16	1050	24.0	+ 5.9	26	51.0	29	-23.0	13	16.3	1.86	-0.11	0.50	12	19	..	..
Listowel.	43 44	80 58	1262	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
London.	42 59	81 13	805	26.2	+ 4.3	31	54.0	29	-18.0	14	14.8	4.27	-0.55	0 80	17	14	..	1
Paris.	43 12	80 25	840	25.2	+ 3.2	25	51.0	29	-20.0	14	14.7	3.36	+0.53	0.62	15	16	..	..
Snelburne.	44 5	80 47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stratford.	43 23	81 0	1191	24.0	+ 4.4	39	52.0	29	-20.0	13	14.0	2.90	-0.57	0.50	11	20	..	3
Woodstock.	43 8	80 47	980	24.0	+ 4.4	39	52.0	29	-20.0	13	14.0	2.90	-0.57	0.50	11	20	..	..
Lake Ontario Counties																		
Agincourt.	43 47	79 16	590	21.3	+ 1.8	18	48.0	29	-25.0	13	13.5	3.30	+1.00	0 60	19	12	..	5
Aurora.	43 57	79 24	886	14.4	—	6	44.5	29	-30.0	12-13	11.7	3.50	+1.40	0.20	8	23	..	1
Hamilton.	43 16	79 54	803	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oshawa.	43 53	78 52	331	21.1	..	5	48.0	30	-27.0	13	15.5	3.44	+0.63	0.56	17	14	..	1
Toronto.	43 40	79 24	350	25.5	+ 2.7	74	54.3	29	-22.0	13	15.5	—	—	—	..	..	..	..
Toronto Is. (Lakeside Home)	43 40	79 24	..	25.9	..	9	50.0	29	-22.0	13	15.9	3.10	+0.44	0 40	11	20	..	..
Uxbridge.	44 5	79 8	886	18.4	—	10	49.0	29	-30.5	13	14.0	2.58	—	0.40	10	21	..	1
Wexford.	43 44	79 17	555	20.7	—	2	50.0	29	-27.0	13	16.6	—	..	..	..	..	..	..
East-Central Counties																		
Bancroft.	45 1	77 50	..	13.3	+ 1.6	25	50.0	29	-35.0	12-13	21.1	—	—	—	..	..	..	..
Haliburton.	45 1	78 28	1050	15.1	+ 1.2	28	49.0	29	-38.0	13	23.6	—	—	—	9	22	..	..
Kinmount.	44 45	78 38	920	13.1	- 1.0	16	46.0	29	-59.0	13	21.7	2.10	+0.03	0.60	10	21	..	..
Lakefield.	44 25	78 15	850	18.5	+ 3.1	27	54.0	29	-34.0	13	20.0	3.65	+1.21	1.00	11	20	..	..
Lindsay.	44 20	78 45	872	17.8	+ 2.3	33	47.6	29	-31.3	13	20.3	2.68	-1.35	0.45	11	10	..	..
Madoc.	44 30	77 29	575	13.6	- 2.1	10	45.0	29	-31.0	14	17.1	3.45	-0.05	0.58	15	16	..	..
Norwood.	44 24	77 57	..	15.4	- 1.2	10	57.0	27	-31.5	13	23.8	0.95	-2.35	0.50	5	26	..	..
Peterboro.	44 17	78 19	722	17.4	+ 2.0	42	48.0	29-30	-32.0	13	20.6	3.61	-0.36	0.80	13	18	..	..
Ursula.	44 54	78 18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
QUEBEC—																		
Middle St. Lawrence																		
Bark Lake Depot.	46 30	75 20	..	6.3	—	2	48.0	30	-36.0	13	20.9	3.02	—	0.55	12	19	..	..
Beauceville.	46 11	70 48	557	1.5	—	1	45.0	39	-32.0	1	31.4	2.25	—	0.60	9	22	..	..
Bramo.	45 10	72 36	678	11.7	- 1.0	33	43.0	29	-32.0	13	21.9	1.60	-0.53	1.00	4	27	..	..
Cap Rouge.	46 46	71 18	..	6.6	—	3	43.0	30	-25.0	14	18.4	3.70	—	0.60	11	20	..	..
Cedar Rapids.	45 21	74 5	132	10.7	—	2	48.0	30	-23.0	13	19.7	1.30	—	0.40	5	26	..	..
D'Israeli.	45 55	71 21	896	4.3	—	4	38.0	25	-31.0	1	27.2	3.05	—	1.20	6	25	..	..
Drummondville.	44 30	72 30	..	7.0	—	1	45.0	30	-32.0	14	26.0	5.57	—	1.20	16	15	..	..
Huberdeau.	45 59	74 41	900	9.9	—	1	41.0	29	-31.0	13-14	21.2	2.80	—	0.70	12	19	..	..
Huntingdon.	45 5	74 10	..	11.4	—	1	50.0	30	-28.0	13	21.9	3.08	—	0.60	12	19	..	2
Lake Megantic.	45 35	70 53	1314	—	—	1	51.0	30	—	—	—	2.39	—	0.70	11	20	..	..
MacDonald College (Ste. Anne de Bellevue).	45 27	73 59	..	9.1	—	8	40.0	23-24	-27.2	12-13	20.9	—	—	—	17	14	..	1
Montreal.	45 30	73 35	187	12.2	- 1.0	39	53.6	30	-27.1	13	15.8	4.23	+0.48	0.80	17	14	..	..
Nicolet.	46 15	72 36	..	7.4	—	1	38.0	29	-34.1	14	22.7	2.92	—	0.60	14	17	..	3
Nomining.	46 27	75 0	..	10.1	+ 0.0	39	43.0	30	-24.0	14	16.4	3.69	+0.49	0.66	17	14	..	..
Quebec.	46 48	71 13	296	4.7	—	1	42.0	30	-33.0	14	22.8	4.80	—	1.50	8	23	..	..
St. Lin.	45 43	73 47	..	2.2	—	2	48.0	30	-31.0	13	13.2	—	—	—	..	..	..	..
Shawbridge.	45 54	74 3	..	2.4	- 2.0	11	35.0	30	-33.0	14	20.2	5.02	—	0.90	12	19	..	2
Shawinigan Falls.	46 34	72 43	..	6.2	—	1	51.5	29	-28.3	14	21.7	2.77	-0.44	1.46	17	14	..	6
Sherbrooke.	45 32	72 5	620	10.1	- 2.5	11	44.9	29	-28.3	14	21.7	2.77	-0.44	1.46	17	14	..	..
Lower St. Lawrence & Gulf																		
*Anticosti, E. Pt.	49 6	61 42	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Anticosti, S.W. Pt.	49 24	63 33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Anticosti, W. Pt.	49 52	64 32	30	9.6	—	33	43.0	30	-13.0	14	—	1.70	—	0.50	5	26	1	..
Bicquet.	48 25	68 53	..	12.7	+ 1.2	25	45.0	3	-5.0	18	—	0.70	—	0.40	4	27	..	..
*Cape Chatte.	49 6	66 45	..	10.8	- 0.1	31	45.0	30	-4.0	2	—	1.62	-0.62	0.60	9	22	..	..
*Cape Magdalen.	49 16	65 20	93	10.8	- 0.1	31	43.0	31	-26.0	26	24.0	1.48	—	0.60	5	28	..	..
*Capeascal.	48 21	67 12	450	0.5	—	1	43.0	30	-20.0	21	17.4	1.01	-1.54	0.40	7	24	..	..
Father Point.	48 31	68 19	20	7.2	- 1.6	36	44.0	30	-20.8	13	15.3	2.15	—	0.70	7	24	..	..
Ste Anne de la Pocatiere.	47 22	70 2	65	6.4	—	3	38.4	28	-20.8	13	15.3	1.70	—	0.60	7	24	..	..
Tadoussac.	48 31	72 13	352	2.1	—	8	40.0	30	-25.0	13	19.7	—	—	—	..	..	..	..
Lake St. John																		
Chicoutimi.	48 25	71 8	150	—	—	36	—	—	—	—	—	0.93	-0.57	0.27	12	19	..	..
Chicoutimi (2).	48 25	71 5	..	2.2	—	3	50.0	30	-31.0	26	13.2	1.15	—	0.80	4	27	..	..
Lake Edward.	47 39	72 15	1333	0.0	—	2	40.0	30	-28.0	11	19.4	1.30	—	0.40	4	27	..	..
La Tuque.	47 27	72 48	520	4.7	—	2	46.0	30	-30.0	14	24.8	1.54	—	0.50	9	22	..	..
Miatassini.	48 54	72 15	380	- 0.9	—	3	46.0	30	-28.0	13	24.8	1.54	—	0.70	7	23	..	..
Roberval.	48 31	72 13	352	2.1	—	1	—	—	—	—	—	—	—	—	—	..	..	..
The Northwestern Districts																		
Abitibi.	48 33	79 22	..	2.4	+ 1.0	18	44.0	29	-34.0	13-25	22.2	1.30	-0.6					

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JAN., 1914.

*Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION								
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amm.	Difference from average	Heaviest fall in month	Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of ice
NOVA SCOTIA—																		
Advocate.....	45 19	64 46	....	20.1	—	2 49.0	25	— 9.0	20	15.3	—	—	—	—	—	—	—	
Antigonish.....	45 38	61 59	50	20.7	—	3 53.0	31	—11.0	24	21.1	—	—	1.05	14	17	—	—	1
Halifax.....	44 39	63 36	88	22.2	— 1.9	39 51.4	30	—7.0	23	18.2	2.86	—2.99	—	0.55	10	21	—	—
Kentville.....	45 3 61 36	40	16.8	—	—	3 49.0	30	—12.0	21	14.7	2.47	—	—	0.75	11	20	—	—
Kentville (2).....	—	—	—	19.7	—	1 53.0	30	—5.0	21	13.5	2.81	—	—	1.20	4	27	—	—
Liverpool.....	44 0	64 40	56	24.6	—	1 54.0	31	—2.5	23	19.7	2.98	—	—	1.07	6	25	—	—
Nappan.....	45 46	64 34	....	15.9	—	1 46.0	25-30	—19.0	21	16.1	1.47	—	—	1.22	5	26	—	—
New Germany.....	44 30	64 42	....	23.9	—	2 54.0	30	—15.0	23	13.8	2.93	—	—	0.50	3	28	—	—
Parrsboro'.....	45 23	64 19	40	17.2	+ 1.9	16 40.0	25-29	—16.0	23	21.4	1.00	—	—	—	—	—	—	1
Port Hastings.....	45 39	61 22	45	—	—	22	—	—	—	—	—	—	—	—	—	—	—	—
Sable Island, E. Pt.....	43 58	59 46	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sable Island (Main Station).....	43 57	60 6	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sutherland's River.....	—	—	—	19.2	—	1 52.0	30-31	—12.0	21	21.4	—	—	—	—	—	—	—	—
Sydney.....	46 10	60 10	35	22.7	+ 0.6	49 49.5	25	0.5	24	13.8	2.34	—2.91	0.70	9	22	—	—	—
Truro.....	45 22	63 18	77	17.6	— 1.7	39 49.5	25	—24.0	23	19.5	4.39	+ 2.52	1.03	13	18	—	—	—
Truro (2).....	45 25	63 15	....	17.0	—	3 49.5	25	—17.5	23	19.5	3.50	—	0.80	8	23	—	—	—
*Whitehead.....	45 15	61 8	20	22.4	— 2.1	31 41.0	25	2.0	15	12.0	2.59	— 1.17	0.70	6	25	—	—	1
Windsor.....	44 59	64 6	90	20.8	— 1.4	11 52.0	31	—7.5	21	15.8	2.97	+ 0.10	1.00	11	20	—	—	—
Wolfville.....	45 7	64 20	....	20.9	— 0.7	13 51.0	30	— 1.8	14-20	17.7	2.30	— 1.62	0.70	8	23	—	—	—
Yarmouth.....	43 50	66 2	65	25.8	— 0.8	33 44.9	25	1.4	14	14.8	3.07	— 2.09	0.76	17	14	—	—	2
P. E. ISLAND—																		
Charlottetown.....	46 14	63 10	38	16.8	— 1.9	38 42.0	25-30	— 6.0	23	15.7	3.29	— 0.12	0.85	10	21	—	—	—
Charlottetown (Exp. Farm).....	46 14	63 7	75	16.3	—	3 45.0	25	— 6.0	20-23	17.4	3.93	—	1.10	12	19	—	—	—
Hamilton.....	46 25	63 48	....	—	17	—	—	—	—	—	—	—	—	—	—	—	—	—
Summerside.....	46 18	63 51	....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NEWFOUNDLAND—																		
*Amour Point.....	51 28	56 51	....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burin.....	47 0	55 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Cape Norman.....	51 38	55 52	....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fogo.....	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Point Riche.....	50 42	57 25	35	13.5	+ 1.4	31 40.0	25	—15.6	29	—	1.55	— 1.11	0.50	8	23	—	—	—
Port aux Basques.....	47 35	58 10	27	21.0	—	5 41.5	30	6.0	20	11.0	2.35	—	0.40	21	10	—	—	—
St. George's.....	48 28	58 25	....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. John's.....	47 34	58 42	125	22.6	— 1.6	41 47.0	25	5.0	23	10.8	5.45	— 0.84	1.20	16	15	—	—	—
BERMUDA—																		
Prospect.....	32 17	64 46	151	62.4	— 0.1	23 71.4	30	47.2	16 10.4	6.18	+ 1.28	1.90	20	11	..	2	—	—

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING JAN., 1914.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days 01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....	0.05	1	24	0.05	5	14.5	6	4.5	16	
Annie (Canoe Point).....	1.96	12	6	0.35	7	15.5	9	4.0	26	
Beaver Lake (Royal Oak).....	8.87	21	10	1.20	6	4.0	1	4.0	24	
Coquitlam.....	12.46	18	12	2.23	4	7.5	3	4.5	28	
Denman's Island.....	14.38	19	12	1.99	4	15.0	1	15.0	25	
Ferguson.....	1.73	3	12	0.76	6	83.0	16	14.0	26	
Goldstream Lake.....	15.18	24	2	3.39	4	23.5	7	6.0	24	
Hornby Island.....	12.63	18	11	1.93	28	15.1	2	13.1	15	
Hydraulic.....										
Iavermere.....	0.66	2	20	0.48	7	13.4	8	2.5	26-30	
Jordan River.....	17.23	30	0	2.05	4	2.8	4	1.0	26	
Jordan River (Bear Creek).....	26.79	26	2	4.78	5	35.0	15	7.1	27	
Little Qualicum (Fr. Cr. V. I.).....	11.46	16	13	2.25	4	5.0	2	4.0	24	
Lumby.....	0.80	4	16	0.45	6	16.5	11	4.0	22	
Nanu Harbour.....	2.15	6	20	0.64	12	30.3	5	19.3	29	
Rock Creek.....	0.00					18.3	9	4.0	25	
Sooke Lake.....	16.79	23	6	4.25	4	7.0	3	5.0	24	
Stamps Falls (Alberni).....	16.89	25	6	2.41	4	12.5	3	7.0	25	
Wycliffe.....	0.00					25.0	8	6.0	14	
ALBERTA—										
Bardo.....	0.00					2.5	3	1.0	7-17	
Beaver Mines.....	2.01	1	27	2.01	6	14.0	3	6.0	22-24	
Bismarck.....	R	1	25	R	5	7.5	6	2.8	18	
Bittern Lake.....	0.00					8.0	8	2.8	19	
Brooks.....	0.03					9.0	8	3.0	19	
Brueggerheim.....										
Caldwell.....	0.00					14.0	8	3.0	29	
Claresholme.....	0.00					7.5	3	3.0	22	
Clarinda.....	0.00					4.5	2	3.5	22	
Coleman.....	0.68	4	17	0.28	7	23.5	10	7.0	26	
Conjuring Creek.....	0.00					7.5	6	3.5	18	
Cree Bank Ranch (Cowley).....	0.08	2	19	0.07	5	21.0	10	7.0	22	
Dorenlee (Bashaw).....	0.10	1	27	0.10	5	10.5	3	4.5	19	
Dunstable (Five Lakes).....	R	1	21	R	5	5.3	10	1.7	26	
Grassy Lake.....	0.00					6.0	4	2.0	26	
Jumping Pound.....	0.00					9.8	4	3.5	8	
La Pearl.....										
Lethbridge.....	0.00					12.2	8	4.0	22	
Linchem.....	0.00					13.8	3	7.0	1	
Lyndon.....	0.00					12.0	4	4.3	28	
Macleod.....	0.00					12.0	6	4.0	22	
Maycroft.....	0.26	2	1	0.23	4	12.0	8	3.1	26	
Mountain View.....	0.00					9.0	4	6.0	21	
Nanton.....	0.00					6.5	4	3.0	25	
Nateby.....	0.00					5.1	5	1.4	8	
Pekisko.....	0.00					15.5	6	9.0	1	
Ponoka.....	0.06	1	25	0.06	5	16.0	5	8.0	7	
Roycroft Ranch (Manville).....	0.00					1.3	2	0.8	26	
Seven Persons.....	0.00					8.5	4	3.3	1	
Waterton Mills.....	0.79	4	20	0.45	5	31.5	7	15.5	22	
SASKATCHEWAN—										
Gull Lake.....	0.00					8.0	4	3.0	18-22	
Gull Lake (Fks. Swift Cur.).....	0.00					14.3	6	4.5	26	
Wapashoa.....										
MANITOBA—										
Cartwright.....	0.16	2	25	0.08	1-15	23.3	6	7.0	28	
Delorina.....	0.00					15.0	4	6.0	19	
Rapid City.....	0.00					14.9	8	3.2	28	
ONTARIO—										
Bow Park Farm (Brantford).....	0.03	6	15	0.41	23	16.1	11	4.3	3	
Deer Park.....	0.99	5	18	0.41	24	19.5	11	4.8	21	
Dutton.....	0.25	1	26	0.25	23	18.0	4	12.0	3	
Emsdale.....	0.10	1	18	0.10	30	28.0	12	9.0	12	
Fort Frances.....										
Georgetown.....	0.50	4	18	0.37	24	18.6	11	3.5	3	
Grand Valley.....	0.41	2	17	0.33	24	20.0	12	3.0	13-20	
Grantham.....	1.00	3	22	0.50	27	9.0	6	4.0	4	
MacCue.....	0.47	2	25	0.25	28	14.0	4	6.0	20	
Niagara Falls.....	1.18	3	24	0.43	9	17.0	5	5.5	1	
Nipigon.....	0.00					14.3	10	6.0	27	
Point Clark.....										
Princeton.....										
Rock Chapel (Grimsby).....	1.49	6	13	0.29	25	21.0	10	9.0	4	
Sydenham.....										
Watford.....	0.67	2	29	0.52	24					
Wawahton Falls.....	0.94	2	19	0.80	29	17.0	10	5.0	10	
Westminster.....	0.53	1	27	0.53	24	18.0	3	13.0	4	
Westport.....	0.25	1	23	0.25	24	21.5	7	5.5	21	
Wiarton.....	0.82	3	20	0.40	27	32.0	8	7.0	22	

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING JAN., 1914.

STATIONS	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days 01 or over.	No. of Fair Days.	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
QUEBEC—										
Kipawa Dam.....	0.06	2	18	0.04	29	21.4	12	7.2	31	
Lucerne.....	0.00					27.5	9	8.0	21	
Perkins Mills.....	0.00					29.5	9	8.0	21	
Quinze Dam.....										
Timiskaming.....										
NEW BRUNSWICK—										
Point Escuminac	0.11	2	24	0.09	25	14.4	7	4.5	11	
NOVA SCOTIA—										
Milton.....	1.70	3	26	0.54	24	8.3	2	5.3	21	
South Alton.....	1.21	5	18	0.65	25	38.0	8	12.0	1	
White Rock.....	1.65	1	27	1.65	26	19.0	3	8.0	13-21	

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE
MONTH OF JAN., 1914.

a Barometer not reduced to sea level

STATION	PRESSURE.			DIRECTION OF WIND FROM												VELOCITY OF WIND												
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean reduced.			Mean relative humidity			No. of days completely clouded.						N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.
				Highest.	Lowest.	Range.	Mean	Relative	Amount of cloud.	Mean	Relative	Amount of cloud.	Mean	Relative	Amount of cloud.													
BRITISH COLUMBIA—																												
Atlin	59° 35'	133° 38'	2210	29 90	30 60	29 27	1 33	—	7	6	5	7	0	0	0	0	0	0	7	43	62	2.9	...	...		
Barkerville	53° 2	121° 35'	4180	29 66	30 32	28 80	1 52	7	1	0	0	0	0	0	0	0	0	0	0	54	62	...	...	...	
Kamloops	50° 42'	120° 29'	1245	29 72	30 48	28 91	1 57	81	8	15	1	1	18	2	0	0	0	1	3	15	62	3.0	21	27, SW				
<i>a</i> Naramata	49° 10'	123° 37'	125	29 55	30 25	28 53	1 72	91	8	15	0	1	0	18	9	5	5	6	2	21	62	...	...	...	
Prince Rupert	54° 18'	130° 18'	170	29 52	30 01	28 80	1 22	79	6	15	2	2	17	6	0	0	2	0	0	33	62	...	...	...	
<i>a</i> Tranquilla	50° 41'	120° 29'	...	28 46	29 00	27 49	1 57	90	8	7	2	0	12	2	1	0	10	0	34	62	...	...	...		
Vancouver	49° 17'	123° 5'	136	29 72	30 41	28 76	1 70	84	8	17	0	8	29	10	6	1	5	1	2	62	...	...	...	...
Victoria	48° 24'	123° 19'	85	29 69	30 39	28 73	1 66	87	8	11	9	2	20	9	4	2	10	0	6	62	9.5	36	26W	...				
YUKON—																												
Dawson	64° 4'	139° 20'	1200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ALBERTA—																												
Banff	51° 10'	115° 34'	4542	29 82	30 34	29 15	1 19	77	6	4	0	4	1	2	1	19	8	6	21	62	...	...	...	...
Calgary	51° 2	114° 23'	3389	29 81	30 35	29 35	0 97	88	4	4	6	6	4	2	3	2	3	18	18	62	...	...	...	...
Edmonton	53° 33'	113° 30'	2158	29 85	30 42	28 48	0 94	85	5	4	7	5	5	9	13	2	11	2	62	5.0	17	26E	...	...		
Medicine Hat	50° 1	110° 37'	2161	29 83	30 51	29 25	1 26	82	5	4	4	2	0	1	12	19	13	11	10	62	3.0	20	6, SW	...	...	
SASKATCHEWAN—																												
Battleford	52° 41'	108° 20'	1620	29 85	30 64	29 38	1 26	—	4	2	0	0	1	13	0	1	4	10	33	62	...	...	...	...
Moose Jaw	50° 21'	105° 35'	1759	29 92	30 38	29 38	1 01	106	5	4	13	4	15	6	0	9	6	11	29	93	...	...	...	...
Prince Albert	53° 10'	106° 15'	1432	29 87	30 5	29 43	1 16	97	6	9	5	3	2	2	2	2	9	29	62	3.1	15	10NW	...	...		
Qu'Appelle	50° 30'	103° 47'	2115	29 58	30 62	29 28	1 34	83	6	10	3	2	5	8	11	5	4	23	1	62	10.2	33	28NW	...	...	
Swift Current	50° 20'	107° 45'	2439	29 83	30 44	29 26	1 18	88	6	8	3	2	1	5	4	19	16	8	4	62	10.9	...	...	...	...
MANITOBA—																												
Minnedosa	50° 15'	99° 50'	1699	9 93	36 62	29 34	1 28	96	5	7	0	5	7	6	1	1	11	17	14	62	...	...	...	...
<i>a</i> St. Alba's (Treesbank)	49° 42'	99° 33'	1180	28 63	29 68	28 12	1 56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Le Paa	53° 49'	101° 15'	880	29 95	30 61	29 47	1 14	100	6	15	13	6	10	3	4	8	13	5	0	62	7.5	35	5S, SE	...	...	
Winnipeg	49° 53'	97° 7'	760	29.95	30.60	29.44	1 16	96	6	6	9	3	3	27	10	3	8	27	3	93	11.9	35	5S, SE	...	...	
ONTARIO—																												
Cochrane	49° 2	81° 0'	946	30 03	30 64	29 44	1 20	—	5	8	11	6	1	8	14	2	6	11	3	62	7.4	31	29W	...	...	
Guelph	43° 33'	80° 16'	050	30 01	30 62	29 47	1 15	92	8	18	12	5	1	13	6	5	3	10	7	62	...	...	...	...
Hairebury	47° 29'	79° 39'	687	30 01	30 62	29 47	1 15	92	8	18	12	5	1	13	6	0	9	16	25	93	11.8	...	...	...	
Kingston	44° 13'	76° 29'	285	29 97	30 36	29 29	20 148	83	7	15	2	29	1	9	1	3	4	12	1	62	9.9	...	...	...	...
London	42° 59'	81° 13'	808	29 88	30 45	28 81	1 67	89	8	20	0	17	3	37	0	6	0	30	0	93	...	...	...	...
<i>a</i> Lindsay	44° 20'	78° 45'	876	29 96	30 25	29 31	1 19	77	14	13	14	12	19	2	11	8	9	12	1	62	9.3	...	...	...	...
Ottawa	45° 26'	75° 42'	294	29 97	30 62	29 22	1 40	96	6	13	10	12	19	0	1	3	6	11	0	62	...	...	...	...	...
Parry Sound	45° 18'	80° 0'	635	29 92	30 57	29 27	1 36	87	8	19	8	12	2	18	0	8	1	11	2	62	9.4	28	29 SW	...	...	
Port Arthur	48° 27'	78° 12'	644	29 93	30 58	29 42	1 16	85	7	12	18	10	4	0	4	3	21	16	17	93	7.8	33	29, SW	...	...	
Port Stan. y	42° 40'	81° 13'	592	29 94	30 60	29 27	1 33	87	9	23	0	4	7	8	1	13	13	12	4	62	...	...	...	...	...
Southampton	41° 30'	81° 21'	656	29 92	30 50	29 23	1 33	90	10	26	14	10	4	10	15	6	2	1	0	62	...	...	...	...	...
Stonecliff	16°	9° 78'	657	29 98	30 59	29 27	1 32	—	4	1	2	1	21	1	0	0	16	0	21	62	7.9	16	12, 3nw	...	...	
Toronto	43° 40'	79° 24'	250	29 94	30 62	29 24	1 38	87	8	18	19	2	4	0	8	11	10	8	0	62	14.8	49	31E	...	...	
White Riv r	18° 35'	85° 16'	1252	29 90	30 50	29 33	1 17	—	7	16	5	10	10	3	7	2	4	8	13	62	7.7	28	29NW	...	...	
Woodstock	13° 8'	80° 47'	980	—	—	—	—	—	—	—	6	7	5	23	4	17	12	19	0	93	11.5	30	31SW, NW	...	...	
QUEBEC—																												
Anticosti S. W. Pt.	49° 24'	63° 35'	30	29 95	30 60	29 34	1 26	65	5	4	12	3	9	0	16	1	12	0	9	62	11.7	43	30W	...	...	
Father Point	48° 31'	68° 20'	21	29 92	30 77	29 01	1 73	76	5	7	2	6	9	1	1	6	12	0	9	62	11.7	43	30W	...	...	
Montreal	15° 30'	73° 35'	187	29 96	30 36	29 22	1 34	69	6	11	0	39	3	0	0	21	20	7	3	93	15.9	41	30NW	...	...	
Quebec	46° 48'	71° 13'	296	29.06	30 57	29 28	1 29	76	7	11	0	39	3	0	0	21	20	7	3	93	15.7	57	31 NE	...	...	
Sherbrooke	45° 32'	72° 5	620	29.97	30 60	29 23	1 37	80	6	10	4	1	10	18	10	10	21	17	2	93	...	...	...	...	...
NEW BRUNSWICK—																												
Chath m	47° 3	65° 29'	21	29 92	30 77	29 01	1 73	76	5	7	2	6	9	1	1	6	22	15	2	62	11.7	38	30 SW	...	...	
Fredericton	45° 57'	66° 36'	164	29 94	30 74	29 06	1 68	85	5	11	8	16	3	4	4	5	11	27	12	93	8.1	41	25NW	...	...	
St. Jo'n.	45° 17'	66° 4	70	29.88	30 71	29 00	1 71	76	5	7	22	17	6	4	4	6	2	30	2	93	15.1	41	25NW	...	...	
NOVA SCOTIA—																												
Halifax	44° 39'	63° 36'	88	29 83	30 68	28 94	1 74	88	7	10	3	22	3	8	0	7	5	14	0	62	15.2	41	25SW	...	...	
Sable Island (MStation)	13° 57'	60° 25'	13	29 78	30 66	28 89	1 77	85	8	18	4	21	6	3	9	9												

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF THE SECOND CLASS, DURING THE MONTH OF JANUARY, 1914

STATION	DIRECTION OF WIND FROM								Total number of Observations	
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	1	7	5	1	4	2	5	6	0	31
Beaver Lodge.....	10	2	0	6	0	0	2	42	0	62
Didsbury.....	0	3	0	2	6	3	11	6	0	31
Halkirk (Emsburg).....	4	2	4	10	15	7	4	16	0	62
Hillsdown.....	1	5	0	7	4	10	0	11	24	62
Loveland.....	2	2	5	13	0	13	12	15	0	62
Macleod.....	2	9	9	2	0	3	32	3	2	62
Ranfurly (Waitefield).....	9	4	13	15	7	5	8	22	10	93
Sion.....	4	1	8	28	4	16	11	18	0	90
SASKATCHEWAN—										
Brownhill (Grenfell).....	3	6	1	9	11	14	1	17	0	62
Chaplin.....	0	0	6	6	6	4	14	16	10	62
Crescent Lake.....	3	2	1	6	5	3	4	7	0	31
Estevan.....	2	3	3	3	2	6	4	6	2	31
Fort Qu'Appelle.....	1	7	15	4	5	1	15	12	2	62
Indian Head.....	6	9	4	4	9	22	4	32	3	93
Kamsack.....										
Larchmount (Pambum).....	0	7	3	4	1	21	4	22	0	62
Muenster (St. Peter's Monastery).....	7	5	4	9	11	4	19	3	0	62
Onion Lake.....	2	1	10	1	0	0	5	12	0	31
Pense (Gatesgarth).....	0	1	0	13	0	2	5	10	0	31
Waseca.....	0	3	2	7	0	0	7	12	0	31
Yarbo (Fairfield).....	4	2	6	4	1	1	6	6	1	31
MANITOBA—										
Berens River.....										
Brandon.....	2	11	8	8	2	12	18	15	18	84
Hillview.....	0	5	14	14	0	7	5	48	0	93
Moose Horn Bay (Aitkensville).....	12	3	0	7	11	1	0	16	5	55
Morden.....	17	1	2	8	14	1	9	6	4	62
Oak Bank.....	11	3	1	6	6	9	2	22	2	62
Stony Mountain.....	8	7	5	2	16	3	4	15	0	60
ONTARIO—										
Agincourt.....	4	7	7	8	0	14	7	16	2	65
Alton.....	25	4	17	6	3	8	27	3	0	93
Beatrice.....	2	1	4	15	16	0	0	16	39	93
Birnam.....	8	1	5	6	13	7	9	9	4	62
Brucefield.....	6	6	4	11	13	7	5	10	0	62
Cottam.....	7	1	8	3	22	14	7	0	0	62
Gravenhurst.....	20	3	18	22	7	2	8	2	11	93
North Bruce.....	19	6	17	17	23	5	0	6	0	93
Orillia.....	2	2	3	2	5	3	5	4	0	26
Port Dover.....	13	5	9	5	2	13	12	13	0	62
Stoney Creek.....	3	16	3	19	3	10	36	3	0	93
Wexford.....	0	3	5	2	0	10	0	5	6	31
QUEBEC—										
Abitibi.....	28	6	10	8	22	2	10	7	0	93
Anticosti, Heath Point.....										
Anticosti, West Point.....										
Bicquet.....	8	14	3	0	37	11	4	14	2	93
Brome.....	17	3	7	3	19	14	23	7	0	93
Cape Chatte.....	5	5	15	1	0	9	22	3	33	93
Cape Magdalen.....	1	2	6	0	18	2	0	51	13	93
Cap Rouge.....	10	10	0	0	0	0	0	11	0	31
Cedars.....	3	12	0	1	0	2	9	4	0	31
Chicoutimi.....	1	10	1	5	0	2	9	7	58	93
Clarke City.....										
NEW BRUNSWICK—										
Dalhousie.....	0	0	4	1	0	1	24	1	0	31
Moncton.....	5	8	1	5	0	0	1	10	1	31
Pt. Lepreaux.....	18	29	3	5	2	10	2	12	0	81
Sussex.....	4	4	0	0	0	3	1	2	17	31
NOVA SCOTIA—										
Kentville.....	3	7	3	4	0	4	4	6	0	31
Liverpool.....	1	9	3	0	0	0	4	14	0	31
Sable Island, E. Pt.....										
Whitehead.....	5	4	4	4	2	2	0	10	0	31

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF
JANUARY 1914.

STATION.	11 HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Shawnigan Lake.....							.03	.17	.15	.17	.18	.14	.08	.02				
Victoria.....							T	.15	.17	.19	.24	.19	.14	.06				
Salmon Arm.....							.01	.04	.12	.16	.21	.21	.16	.07	.00	.02		
Nanaimo.....																		
Vancouver.....							T	.04	.10	.22	.23	.25	.17	.14	.09	T		
Agassiz.....									.01	.09	.11	.09	.06	.05	.01			
Tranquille.....								.05	.11	.17	.23	.25	.21	.24	.14			
Summerville.....								.07	.15	.17	.21	.15	.14	.09	T			
Kamloops.....								.01	.08	.16	.20	.23	.21	.16	.01			
Harper's Ranch.....																		
Invermere.....								T	.13	.24	.34	.41	.37	.26				
Edmonton.....								.03	.22	.33	.39	.42	.44	.32	.08			
Lethbridge.....								.10	.31	.42	.47	.50	.50	.50	.45	.08		
Lacombe.....								.06	.24	.35	.39	.46	.42	.34	.19			
Medicine Hat.....								.07	.28	.41	.44	.47	.48	.41	.18			
Fort Dunvegan.....									.07	.25	.27	.24	.09					
Fort Vermilion.....																		
Battleford.....							.09	.41	.60	.66	.67	.71	.71	.55	.15			
Indian Head.....									.11	.32	.40	.47	.44	.45	.35	.16		
Moosejaw.....								.01	.20	.36	.41	.47	.47	.35	.14			
Scott.....								.05	.36	.45	.50	.49	.52	.46	.26	.04		
Rosthern.....									.17	.37	.46	.50	.52	.48	.44	.26		
Brandon.....								T	.14	.23	.41	.41	.46	.40	.25	.03		
Winnipeg.....									.06	.17	.26	.33	.40	.35	.40	.25	T	
Le Pas.....									.01	.19	.22	.25	.28	.34	.30	.18		
Haileybury.....									.09	.25	.32	.29	.34	.34	.32	.20	.02	
Gravenhurst.....									.03	.11	.18	.27	.33	.30	.32	.29	.07	
Woodstock.....									.09	.14	.15	.19	.17	.16	.15	.12	.02	
Lindsay.....									.02	.17	.32	.38	.37	.34	.32	.26	.06	
Barrie.....									.12	.18	.21	.28	.19	.17	.13			
Toronto.....									.06	.15	.20	.29	.30	.23	.23	.21	.05	
Kingston.....									.01	.21	.31	.33	.32	.29	.30	.19	.03	
Ottawa.....									.01	.27	.37	.38	.46	.45	.49	.44	.28	.04
Montreal.....																		
Cap Rouge.....									.08	.17	.20	.28	.34	.36	.31	.12		
Quebec.....									.11	.21	.28	.41	.45	.44	.37	.26		
Ste. Anne de la Pocatiere.....									.16	.34	.41	.41	.38	.42	.44	.41	.01	
Sherbrooke.....									.06	.18	.35	.41	.41	.40	.36	.19		
Fredericton.....									.17	.30	.34	.43	.44	.44	.45	.44	.10	
Charlottetown.....									.14	.23	.28	.32	.27	.29	.28	.19	.02	
Napan.....									.17	.31	.42	.46	.46	.41	.41	.31	.04	
Wolfville.....									.02	.19	.33	.45	.45	.48	.35	.35	.30	.05
Keatville.....									.17	.30	.41	.46	.48	.45	.38	.29	.06	

SUMMARY OF SUNSHINE RECORDS

Thunder recorded:

- 1.
2. Alberni.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
26. Nakusp.
- 27.
- 28.
- 29.
- 30.
- 31.

Auroras recorded in January, 1914:

1. Campsie IV.
2. Prince IV.
3. Prince IV.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
14. Sion IV.
- 15.
- 16.
- 17.
18. Causapscal.
- 19.
20. Sion III.
21. St. Albans II, Rutherglen IV, Schreiber IV, Edmonton II, Muenster IV, Prince III, Sion III.
22. Muenster III.
- 23.
24. Morden.
- 25.
- 26.
27. Morden.
- 28.
- 29.
- 30.
31. Muenster.

FORECASTS FOR JANUARY 1914

The forecasts issued by this office at 11 p.m. each night, are for the 24 hours beginning at 8 a.m. the following day; and are published in most morning newspapers.

The number of these predictions issued during the month was 1273. These were divided as follows:

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	89	63	18	8	80.9
Saskatchewan.....	87	62	17	8	81.0
Manitoba.....	88	59	23	6	80.1
Lake Superior.....	102	81	18	3	88.2
Lower Lake Region.....	118	95	14	9	86.4
Georgian Bay.....	118	93	15	10	85.2
Ottawa Valley.....	103	85	11	7	87.9
Upper St. Lawrence.....	103	86	10	7	88.3
Lower St. Lawrence.....	103	86	4	13	85.4
Gulf.....	114	98	6	10	88.6
Maritime Provinces West.....	124	95	14	15	82.3
Maritime Provinces East.....	124	90	17	17	79.4
Total.....	1273	993	167	113	84.6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,
Feb. 28th, 1914.

